

Notice of Allowability

Application No.

10/663,725

Examiner

Jermie Cozart

Applicant(s)

MAEDA, JUN

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 17 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/5/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims,

Claim 13, Line 2, "1" has been changed to - -11- -.

This amendment was performed to provide proper reference to the Equations 12 or 13.

2. The following is an examiner's statement of reasons for allowance: Regarding **claim 1**, the prior art does not teach or suggest determining the thread engagement height (h) and the thread pitch (P) based on the determined pipe outer diameter (OD) and pipe wall thickness (t), provisionally determining the thread taper (Tt) based on the determined pipe outer diameter (OD) and pipe wall thickness (t), and on the provisionally determined lip outer diameter (DB) of the pin portion, the provisionally determined complete engagement thread length (L) and the determined thread engagement height (h), determining the lip length (l), the seal length of the pin portion (S.sub.P), the seal taper (Ts), the shoulder angle (.theta..sub.1), and the lip thickness ratio (X) based on the provisionally determined lip thickness (lt) of the pin portion and the provisionally determined lip root outer diameter (DB) of the pin portion so that a function f is greater than 1.2, and thereby determining the shape of the pin lip, and determining the lip thickness (lt) of the pin portion and the lip outer diameter (DB) of the

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pin portion, and also determining the diameter of the end of the lip portion (Papex), determining the thread taper (Tt) and the complete engagement thread length (L) based on the determined lip thickness (lt) of the pin portion, the determined lip root outer diameter (DB) and the determined thread engagement height (h) of the pin portion, and determining the thread parallel portion diameter (DA) of the box portion, and determining the load flank angle (α), the stabbing flank angle (β), the gap (δ) between the stabbing flanks, and the gap (γ) between the thread crests, and determining the shape of the seal portion including the seal length (S.sub.B) of the box portion based on the seal length (S.sub.P) of the pin portion and the dimensions of each portion of the pin portion, in combination with the other claimed limitations;

Regarding **claim 2**, the prior art does not teach or suggest determining the shape of the pin lip by provisionally determining the lip length (l), the seal length (S.sub.P) of the pin portion, the seal taper (Ts), the shoulder angle ($\theta_{sub.1}$), and the lip thickness ratio (X) based on the provisionally determined lip thickness (lt) and lip outer diameter (DB) of the pin portion so that the function f is greater than 1.2, and based on the determined pin lip shape, (i) determining the lip thickness (lt) of the pin portion and the lip root outer diameter (DB) of the pin portion, determining the thread parallel portion diameter (DA) of the box portion based on the lip thickness (lt) and the lip root outer diameter (DB) of the pin portion, and determining the thread taper (Tt) and the complete engagement thread length (L), and (ii) determining the shape of the seal portion including the seal length (S.sub.B) of the box portion and the diameter of the end of the seal (Bapex) of the box

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portion based on the dimensions of each portion of the seal portion of the pin portion, in combination with the other claimed limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC
November 22, 2004



DAVID P. BRYANT
PRIMARY EXAMINER